

# FABRICATION LAB

## CNC Router

### Registration Form and Disclaimer

#### Your Details

First Name

Last Name

Address

Email

Mobile

Other

**You must sign up for an Edge Account as part of this induction with your email address specified above.**

Are you 16 years of age or over? YES  NO

#### Fabrication Lab Acknowledgement and Disclaimer:

By signing this registration form I, \_\_\_\_\_, acknowledge and agree that:

1. I have completed the induction program conducted by the State Library, which is designed to provide me with information and training about the safe operation and use of equipment that will be available in The Edge Basement. I have been inducted in the following equipment today:
  - a. CNC Router
2. I will only be allowed access to The Edge Basement facility and use of equipment upon completion of the induction program and after I have signed this registration form.

3. I understand that the State Library may charge a fee for me to use equipment in The Edge Basement and I must comply with the booking and payment conditions that apply from time to time.
4. I am responsible for ensuring that I always use equipment appropriately to ensure the safety of myself and other people.
5. I must not use the equipment in a way that creates a risk to my own safety or the safety of other people or that causes damages to any property.
6. I must comply with any directions or instructions given by State Library staff in relation to use of the equipment.
7. I must immediately notify State Library staff if I become aware of any safety issues in relation to the equipment, including any malfunctioning or damaged equipment.
8. My access to The Edge Basement and the equipment is subject to me continuing to act in a safe manner and to comply with directions given by State Library staff.
9. If I misuse the equipment, or do anything that creates a safety risk, then I may be asked to leave The Edge Basement and I will no longer be entitled to use the equipment.
10. I agree that my access to The Edge Basement and use of the equipment is entirely at my own risk and I will not make any claim against the State Library or its staff (including for negligence) to recover any loss, damage or injury that I sustain as a result of my attendance at the facility, use of equipment or use of any product that I make using the equipment.
11. I agree that the State Library and its staff will not be liable for any loss or damage that is caused to me or a third party (including by negligence) arising out of my attendance at the facility, use of equipment or use of any product that I make using the equipment.
12. I agree to indemnify the State Library and its staff against any claims or proceedings that may be made or brought against them as a result of my attendance at the facility, use of equipment or use of any product that I make using the equipment whether or not the claim or proceeding is due to the negligence of the State Library or its staff.
13. In relation to liability for breach of any term, condition, guarantee or warranty implied by law in connection with the supply of access to The Edge Basement or the equipment to me:

- a. if the State Library’s liability may be lawfully excluded, then it is excluded; and
- b. if liability may not be lawfully excluded, but may be limited, it is limited at the option of the State Library to:
  - i. replacing the supplied goods, supplying equivalent goods or supplying the supplied services again;
  - ii. repairing the goods or paying the cost of having the goods repaired; and
  - iii. paying the cost of replacing the goods or of acquiring equivalent goods or of having the service supplied again.

14. The State Library does not intend to limit or exclude liability that cannot legally be limited or excluded and terms 10, 11, 12 and 13 above only apply to the extent permitted by law.

**Signed**

Date

### Parental Consent

If the participant is less than 18 years of age, this section must be completed by their parent or guardian

By signing this registration form I, \_\_\_\_\_, acknowledge and agree that:

- 1. I am the parent or guardian of \_\_\_\_\_ ('my child').
- 2. I consent to my child participating in activities at The Edge Basement, including the use of equipment within that facility, and have satisfied myself as to the risks associated with those activities.
- 3. I have read all of the information contained in this form and agree to the terms outlined above on my own behalf and on behalf of my child.
- 4. I agree to pay to any fees associated with my child’s use of The Edge Basement.
- 5. In the event of an accident or illness, I authorise State Library staff to obtain or administer any medical assistance or treatment that my child may reasonably require. I accept liability for all costs incurred in obtaining such medical assistance or treatment and undertake to reimburse the State Library the full amount of any costs incurred on my child’s behalf.

**Signed**

Date

### ACTIVITY 1 - KEY SAFETY TIPS FOR THE FABRICATION LAB

Draw a line to match the safety tip with its explanation



Wear the right safety gear



Clean up as you go



Correctly use the right tool for the job



Always wear appropriate covered footwear



No kids under 12. Sorry!



Ask questions if you have any doubts

### EXPLANATION

It's there for your protection

It's easy to ask and you could prevent an injury

They protect your feet & help prevent slipping

Most injuries come from misusing tools

There is hazardous equipment & substances used in the Fabrication Lab

Accidents happen in untidy spaces

NAME:

DATE:

The aim of The Edge Resource Inductions are to ensure that patrons are equipped with practical skills and knowledge to safely access the range of tools available for public use in the Fabrication Lab. In each of these inductions, an Edge Facilitator will deliver training on the safe and appropriate use of equipment.

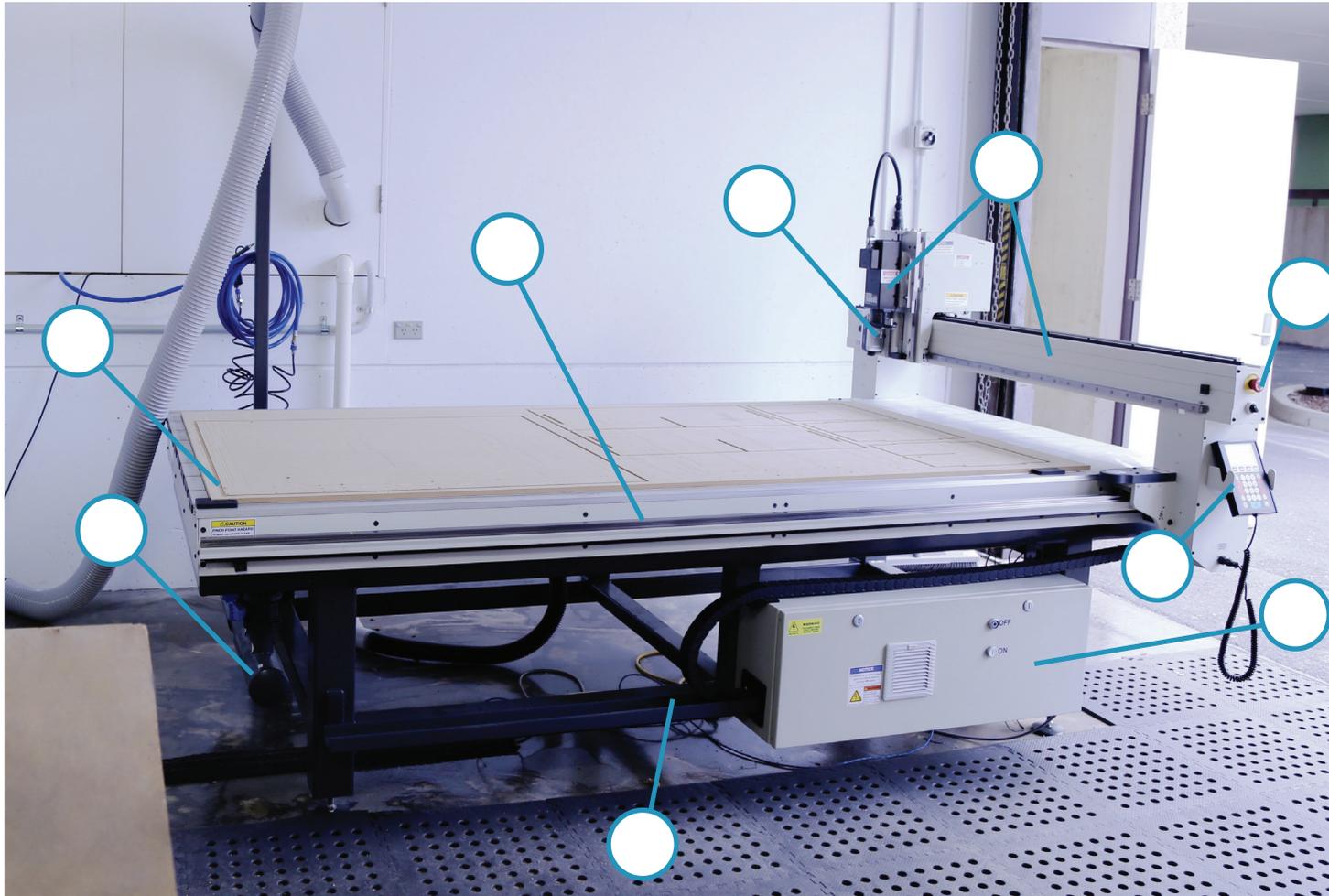
The following form serves as a record of your participation, and provides evidence to demonstrate your competent understanding and practical application of the training.

The assessment evidence collected in this Induction will be in three forms: Written Assessment, Peer Assessment (Verbal), and Workshop Facilitator Observations.

If you require any extra assistance to complete this induction please inform your facilitator at the beginning of the session.

### ACTIVITY 2 - IDENTIFY CNC COMPONENTS

Using the list of components on the right, identify each part by writing the number in the relevant circle.

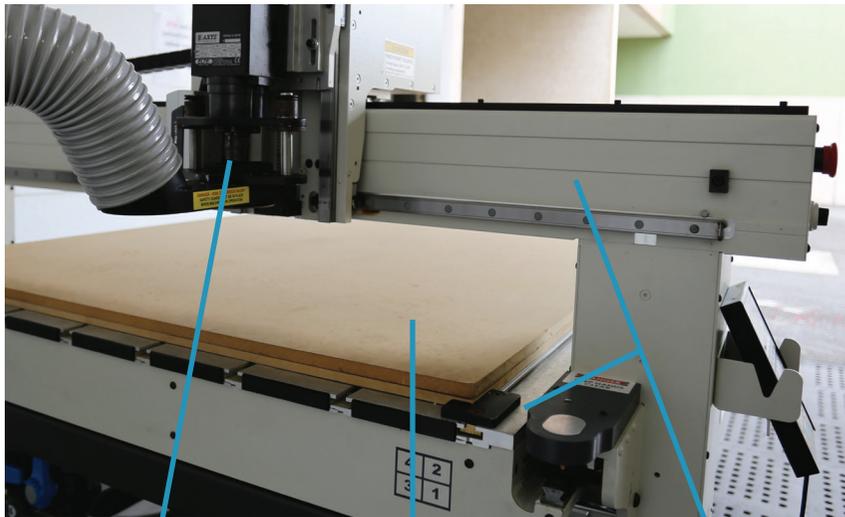


### COMPONENTS

- 1 Vacuum Bed
- 2 Travelling Steel Gantry contains x axis
- 3 Machine Head contains y and z axis
- 4 Location of cutting spindles
- 5 Operators Console
- 6 Inverter enclosure - High Voltage  
A2MC Controller Enclosure - High Voltage  
Power Box Master ON/OFF - High Voltage
- 7 Machine Frame
- 8 Air Supply for Vacuum pressure gauges
- 9 Emergency Stop

### ACTIVITY 3 - IDENTIFY CNC COMPONENTS

Using the list of components and tools on the right, identify each part by writing the number in the relevant circle.



### COMPONENTS & TOOLS

- 1 x and y axis gantry rails - check for dust and debris
- 2 Waste board- check over waste board for flatness. Use scour pad to clean
- 3 Threaded Spindle- check spindle for corrosion/rust and clean with steel wool
- 4 Collet
- 5 Collet Nut
- 6 Collet Wrenches
- 7 Routing Bit

### ACTIVITY 4 - CNC WORKFLOW

We've identified the key stages in the CNC process. Each stage is listed below. Put each step in the correct order, by placing a number in the corresponding circle.

#### 1. PREPARE YOUR DESIGN

- Send file to output and save
- Import to Enroute
- Set up orientation and create a tool path
- Open Multicam app manager and send file to machine
- Design your model and save as .dxf (can also import .ai and some CAD file types)

#### 2. PREPARE THE CNC

- Load material onto bed and clamp accordingly (vacuum, screw)
- Press 'Start' and observe until cutting is complete
- Open file on the CNC control
- Install and qualify required tool
- Turn on dust extractor

### ACTIVITY 5 - SAFETY

Draw a line to match the tips with either a do or a don't.



**DO'S**



**DONT'S**

#### TIP

Check tooling before use

Wear personal protective equipment when operating

Lift heavy material by yourself

Leave machine unattended

Check over your tool paths of your design before cutting

Overtighten tooling

Lean on Machine when it's operating

### PEER ASSESSMENT

I confirm that the observations of my peer showed active participation in this induction workshop and demonstrated a satisfactory understanding, including competent and safe use of the above tools.

Date

Peer Assessor

Peer Assessor Signature

### FACILITATOR WORKSHOP OBSERVATION

I confirm that the observations made of the participant and active participation in this induction workshop demonstrated a satisfactory understanding, including competent and safe use of the CNC router.

Date

Edge Facilitator

Facilitator Signature

### PARTICIPANT DECLARATION

I declare the assessment above was my own individual work.

Date

Participant Signature